Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

GENERAL INDEX

Classified entries will be found under Contributors and Reviewers. New names and names of new genera, species, and varieties are printed in **bold face** type; synonyms in *italics*.

A

Abronia exaltata 337
Acamptopappus Shockleyi 343
Acremonium **meliola** 234
Adams, J. F., work of 373
Addisonia 195, 491
Aecial stage of Puccinia oxalidis 475
Aecidium Enceliae 472
Africa, new fungi from 482
Age and area hypothesis 486
Algae, of Devils Lake 491; of Hawaiian archipelago, 42, 121
Allard, H. A. 175
Allionia linearis 337
Allium **scissum** 58
Alway, F. J., work of 196
Amaranthus deflexus 336
Ammonia and ammonium salts in plants 117
Amobroma sonorae 340
Anamomis 483
Anatomy of Betulaceae 198; of Solidago 250
Andes, Uredinales of the 460
Aneura 285
Angiosperms, evolution of vessels in 83
Antagonism 571
Anthoceros 285
Antirrhinum Kingii 341
Apogamy in Cyatheaceae 97
Appleman, C. O. 200
Argemone intermedia corymbosa 337
Armstrong, S. F., "British grasses" 365
Arthrobotryum 235; caudatum 238; **dieffenbachiae** 237; **glabroides** 237; **penicillium** 238
Arthur, J. C. 460; work of 373, 481
Ascomycetes 482
Aspidopterys 375
Aster, embryo sac of 571
Astragalus triflorus 338
Athyrium 375
Atkinson, G. F. 103
Atriplex confertifolia 336

B

Bartholomew, E. T., work of 374
Bartlett, H. H. 560
Basigyne 483
Bayliss, W. M., work of 569
Beauverie, J., work of 373
Beck, A. J., work of 571
Belandra 375
Belonidium leucorrhodinum 228
Berberis Fremontii 337
Bermuda, flora of 564
Betulaceae, anatomy of 198
Bews, J. W., work of 286
Biology of rusts 366
Blackman, V. H., work of 281
Blake, S. F., work of 284, 375, 481
Blomquist, H. L., 488
Blomqvist, S. G., work of 489
Blueberry, structure of wood 556
Boerker, R. H., work of 287
Boncquet, Mary, work of 199
Boncquet, P. A., work of 199
Borneo, flora of 482
Botrychium virginianum 375
Boulder Park, Colorado, successions of vegetation in 493
Braun, E. Lucy 191; work of 492
Brierly, W. B., work of 288
Briggs, L. J., work of 197, 281
Britton, N. L., "Flora of Bermuda" 564; work of 284
Brodiaea **coronaria** 58
Brooks, C., work of 115
Brown, J. G. 193
Brown, Mabel M., work of 376
Brown, W. H., work of 568
Bryophyllum calycinum, experiments with 150; regeneration of 191
Bud sport on Syringa persica 560
Burt, E. A., work of 284, 482
Butters, F. K., work of 375
Byrsonima 284

C

Calandrinia ambigua 337
Californian plants 120, 334
Calonectria erubescens 232; **graminicola** 232; melioloides 231
Canada, plant formations of 120
Carbon, assimilation of organic 543; nutrition 120
Cassia armata 338
Catacorolla in Nicotiana 178
Cephaelis 285
Ceratodon, assimilation of organic carbon by 543
Chamberlain, C. J. 480, 491, 565, 571
Chase, Agnes, work of 285
Cheilanthes Feei 334
Child, C. M. 274
Chilton, C., work of 118
Chrysler, M. A. 363
Chrysocelis Lupini 463
Cladium Mariscus californicum 335
Clarkia 59; **amoena** 62; **arcuata** 62; **Arnottii** 64; **biloba** 60; **caurina** 62; **decumbens** 64; **delicata** 60; **epilobioides** 60; **gracilis** 63; pulchella 62; **purpurea** 64; **quadrivulnera** 63; rhomboidea 63; **Romanzovii** 63; **superba** 60; **viminea** 64
Cleistogamy in Heteranthera 197
Clements, F. E., work of 484
Cleptomyces Lagerheimianus 464
Clibadium 375
Clitbris clusiae 554; **minor** 554; **pandani** 555; systematic relationship of 552.
Clitocybe acromelalga 110
Cobb, Frieda 560
Cockayne, A. H., work of 119
Cockayne, L., work of 118
Coleosporium Senecionis 462
Collins, G. N., work of 118
Colorado, vegetation of 196
Columella in Marchantia 91
Condalia lycioides 339
Coniophora 284
Coniothyrium **glabroides** 234
Connecticut, vegetation of 572
Contributors: Allard, H. A. 175; Appleman, C. O. 200; Arthur, J. C. 460; Atkinson, G. F. 103; Bartlett, H. H. 560; Blomquist, H. L. 488; Braun, E. Lucy 191; Brown, J. G. 193; Chamberlain, C. J. 480, 491, 565, 571; Child, C. M. 274; Chrysler, M. A. 363; Cobb, Frieda 560; Cook, M. T. 194, 195; Coulter, J. M. 194, 195, 196, 197, 198, 284, 375, 481, 491, 492, 564; Coulter, M. C. 116, 486; Cowles, H. C. 564; Cribbs, J. E. 91; Crocker, W. 117, 199, 287, 376, 485, 487, 490, 568; De Vries, H. 377; East, E. M. 118; Elmore, C. J. 186; Fitzpatrick, H. M. 201; Flint, Esther M. 556; Fuller, G. D. 119, 120, 195, 196, 197, 281, 283, 285, 286, 288, 479, 481, 483, 487, 488, 492, 572; Gericke, W. F. 344; Harsch, R. M. 475; Hasselbring, H. 366; Hitchcock, A. S. 365; Ichimura, T. 109; Jackson, H. S. 289; Jones, D. F. 324; Jørgensen, I. 526; Langdon, LaDema M. 313; Loeb, J. 150; Long, E. R. 354; Long, W. H. 475; Macbride, J. F. 58; MacCaughey, V. 42, 121; McNair, J. B. 268; Nelson, A. 58; Parish, S. B. 334; Ramaley, F. 196; Rigg, G. B. 197, 359; Robbins, W. J. 543; Robbins, W. W. 493; Rock, J. F. 261; Rose, D. H. 112; Sargent, C. S. 423; Schneider, C. 1; Shull, C. A. 119, 120, 570, 571; Spessard, E. A. 362; Steil, W. N. 562; Stevens, F. L. 227; Stiles, W. 526; Stokey, Alma G. 97; Tehon, L. R. 552; Thompson, W. P. 83, 119; Trelease, W. 489, 490; True, R. H. 71; Wells, B. W. 535; Whitaker, Edith S. 250
Cook, M. T. 194
Cooley, J. S., work of 115
Cooper, W. S., work of 492
Copper sulphate, effect of 490
Correlation, chemical basis of 150
Coulter, J. M. 194, 195, 196, 197, 198, 284, 375, 481, 491, 492, 564
Coulter, M. C. 116, 486
Cowles, H. C. 564
Cribbs, J. E. 91; work of 288
Crocker, W. 117, 199, 287, 376, 485, 487, 490, 568
Cucurbita californica 342
Cyatheaceae, apogamy in 97

D

Davie, R. C., work of 284
Davis, A. R., work of 112, 119
Dearness, J., work of 482
Desiccation of Echinocactus 354
Devils Lake, diatoms of 186
De Vries, H. 377
Diatoms of Devils Lake 186
Dietel, P., work of 372
Dimerium piceum 229
Dimerostemma 375
Double fertilization and heterosis 324
Duggar, B. M., work of 112, 113
Dutch Guinea, vegetation of 488
Dysodia Thurberi 343

E

East, E. M. 118
Echinocactus, desiccation and respiration 354
Elmore, C. J. 186
Elymus cinereus 335
Embryo sac and embryo of Phaseolus 376; of Aster and Solidago 571
Endemism 116
Equisetum, endodermis and prothallium of 491
Evans, A. W., work of 482
Evaporation and soil moisture 483
Evergreens, leaf duration in 197

F

Fawcett, W., work of 284
Ferguson, A., work of 281
Fernald, M. L., work of 284, 375, 482
Fern, method for staining antherozoid 562
Fibers of tension 487
Fischer, E., work of 372
Fitzpatrick, H. M. 201
Flint, Esther M. 556
Flora of Bermuda 564
Freiberg, G. W., work of 113
Frommea 481
Fromme, F. D., work of 372
Fruit drop 376
Fuller, G. D. 119, 120, 195, 196, 197, 281, 283, 285, 286, 288, 479, 481, 483, 487, 488, 492, 572
Fungi, physiology of 112
Fusarium **meliolicolum** 245

G

Ganong, W. F., "Textbook of botany" 194
Gassner, G., work of 366, 371
Gates, F. C., work of 195, 484
Gaultheria 284
Gaura coccinea 340
Gentiana **Covillei** 65
Gericke, W. F. 344
Germination 485; of spores 288; of tree seeds 287
Gibbsia 482
Gibbs, Lilian S., work of 482, 488
Gilia ochroleuca 340
Gillman, J. C., work of 114
Gnetales, evolution of vessels in 83
Gnetum moluccense, anatomy of 119
Gortner, R. A., work of 285, 570
Grallomyces **portoricensis** 245
Grasses of West Indies 285
Grasslands and forests of Washington 283
Grebelsky, F., work of 371

H

Habitat, osmotic concentration and 570
Hanson, H. C., work of 487
Haplopappus eximius 70
Harris, J. A., work of 285, 286, 570
Harsch, R. M. 475
Harshberger, J. W., "New Jersey pine barrens" 479
Hasselbring, H. 366
Hawaiian Archipelago, algae of 42, 121; ornamental trees of 481
Hawkins, L. A., work of 115, 120
Hecke, L., work of 370
Heise, G. W., work of 568
Helminthosporium 239; **glabroides** 240; **guareicolum** 241; **helleri** 242; **melastomacearum** 242; **ocoteae** 241; **panici** 242; **parathesicolum** 242; **philodendri** 242
Hemsley, W. B., work of 284
Herbarium Amboinense 490
Heteranthera, cleistogamy in 197
Heterosis and double fertilization 324
Hill, A. W., work of 284
Hitchcock, A. S., work of 285, 365
Hoar, C. S., work of 198
Hodgson, R. W., work of 376
Holloway, J. E., work of 565
Hooker, D. H., work of 287
Huckleberry, structure of wood 556
Hungerford, C. W., work of 370
Hutchinson, J., work of 375
Hybrids, of maize 118; of Verbascum 488
Hypochaeris glabra erostris 343

I

Ichimura, T. 109
Idenburgia 482
Ipomea hirsutula 342
Isoetes melanopoda pallida 334
Isthmospora 244; glabra 244; **spinosa** 244

J

Jaccard, P., work of 487
Jackson, H. S. 289
Jeffrey, E. C., "Anatomy of woody plants" 363
Jones, D. F. 324
Jørgensen, I. 526
Jungelson, A., work of 490

K

Kanitz, A., work of 569
Kashyap, S. R., work of 491
Knight, R. C., work of 281, 282
Kunkel, L. O., work of 373

L

Langdon, LaDema M. 313
La Rivière, Henriette C. C., work of 119
Law of the minimum 287
Lawrence, J. V., work of 285, 570
Lawson, A. A., work of 567
Leaf, duration in evergreens 197; ecological anatomy of 487
Leitch, I., work of 569
Lejeunea 482
Lesage, P., work of 485
Lesquerella Gordoni 337; Palmeri 337
Livingston, B. E., work of 281
Loeb, J. 150; "The organism as a whole" 274
Lonchocarpus 376
Long, E. R. 354
Long, W. H. 475; work of 372
Lupinus 376, 483; flavoculatus 338; pallidus 338
Lycopodiales, prothallia and sporelings of 565
Lycopodium, prothallia of 362
Lycopsis arvensis 341

M

Macbride, J. F. 58
MacCaughey, V. 42, 121
McDougall, W. B., work of 489
McNair, J. B. 268
Macoun, J. M., work of 120
Mains, F. B., work of 114, 369, 370
Maire, R., work of 482
Maize, hybrids of 118
Malte, M. O., work of 120
Mangham, S., work of 199
Marchantia, columella in 91
Marine algae, osmotic experiments with 71
Martin, W. H., work of 282
Mass mutations and twin hybrids of Oenothera grandiflora 377
Meliola, parasites on 227
Menodora spinescens 340
Mentzelia nitens 339; reflexa 339
Mercer, W. H., work of 370
Merrill, E. D., work of 482, 490
Merulius 482
Metrosideros 482
Mistletoe, parasitic on mistletoe 193
Mohavea breviflora 341
Moore, G. T., work of 491
Muhlenbergia repens 335
Mushroom, a new poisonous 109; edible and poisonous 489
Myxomycetes 483

N

Naemosphaera **hyptidicola** 233
Natal vegetation 286
Nectria **meliolicola** 231; **portoricensis** 231
Nelson, A. 58
Nemophila heterophylla **tenera** 66; parviflora Austinae 67; pedunculata **densa** 66; pedunculata **sepulta** 65
New Guinea, new species from 482
New Zealand Biological Station 118
Nichols, G. E., work of 572
Nicotiana, abnormalities in 175; catacorolla in 178; synanthic blossoms in 175
Nitrogen determinations 119
North American flora 492

O

Oenothera, grandiflora, mass mutations and twin hybrids 377; multijuga 340; primiveris 340
Ohio, vegetation of 492
Opperman, Marie, work of 572
Opuntia acanthocarpa 339; mojavensis 339; Parryi 340
Oreocarya echinoides 341
Osmotic concentration and habitat 570; experiments with marine algae 71
Osterhout, G. E., work of 375
Oxystylis lutea 337

P

Palicourea 285
Palm, B., work of 571
Pamburus 376
Paranectria **meliolicola** 232; **miconiae** 233
Parish, S. B. 334; work of 120
Paspalum Larranagae 334
Pease, Vinnie A., work of 197
Peck, Charles Horton, sketch of 103
Pelea 261; auriculaefolia 266; cinerea Hawaiiensis 265; cinerea **rubra** 264; cinerea sulfurea 265; **Gayana** 262; Knudsenii 266; **recurvata** 267; sapotaefolia 261; Wawraeana 265
Pennisetum villosum 335

Pennsylvania, vegetation of 288
Pentstemon **Albrightii** 69; **pandus** 69; perpulcher 67; subulatus 341
Perisporium meliolae 228; **paulliniae** 228
Permeability, quantitative measurement of 526
Phacelia calthifolia 341
Phaseolus, embryo sac and embryo 376
Photosynthesis 568
Phyllogonum luteolum 336
Physalis hederaefolia 341
Physical system, a living 197
Physiological diseases 199
Picea excelsa, variation in 491
Pickering, S., work of 492
Piemeisel, F. J., work of 374
Pilularia americana 334
Pittier, H., work of 376
Plant, communities and sap concentration 285; physical factors in distribution 198
Platydesma 261, 266
Pleiospermium 376
Pleurostachys 284
Polygonum 481
Porto Rico, Meliolicolous parasites 227
Prenanthes **hastata** 70
Prothallia 565; of Lycopodium 362; of Psilotales 567
Pseudonectria **pipericola** 230
Psilostrophe Cooperi 343
Psilotales, prothallia of 567
Psychotria 285
Puccinia **Acnisti** 470; **Arthuriana** 295; **Bambusarum** 467; Becki 293; carduaceous species of 289; **cuzcoensis** 471; **discreta** 308; egregia 306; elephantopodis 311; **erratica** 294; **fraterna** 297; fuscella 299; **hyalina** 298; Hydrocotyles 470; **idonea** 304; **inaequata** 309; **insulana** 296; **Kuntzii** 310; Leptoderma 312; Le Testui 298; Lorentzii 301; malvacearum 470; membranacea 294; Mogiphanis 469; **Nicotianae** 470; **notha** 305; oxalidis, aecial stage of 475; paupercula 311; pinguis 310; Piptocarphae 311; **praealta** 306; **rata** 303; Roseanae 468; rotundata 307; semiinsculpta 301; simplex 335; Spegazzinii 471; Spilanthis 472; unicolor 472; Vernoniae 299, 312; Vernoniae-mollis 296; vernoniicola 296; vernoniphila 298

Q

Quercus alba 434; alba **latiloba** 435; ray system of alba 313; **Andrewsii** 455; annulata 443; austrina 435; **beaumontiana** 451; **Bushii** 453; cinerea 433; coccinea **tuberculata** 426; **Cocksii** 459; **Comptonae** 456; dubia 452; **guadalupensis** 454; **Harbisonii** 458; **Hastingsii** 450; **jolonensis** 456; laurifolia 432; laurifolia tridentata 433; **Lowellii** 459; Mellichampii 451; Mohriana 443; Muehlenbergii **Brayi** 442; nigra 428; nigra **tridentifera** 429; **oviedoensis** 459; **rhombica** 430; **rhombica obovatifolia** 431; rubra 426; rubra leucophylla 428; rubra pagodaefolia 427; rubra triloba 427; Shumardii 424; Shumardii **Schneckii** 425; stellata 436; stellata **anomala** 428; stellata araniosa 441; stellata **attenuata** 437; stellata **Boyntonii** 437; stellata Margaretta 440; stellata **Palmeri** 439; stellata **paludosa** 441; stellata **parviloba** 438; stellata **rufescens** 439; subfalcata **microcarpa** 454; texana 423, 426; texana **chesosensis** 423; texana **stellipila** 424; utahensis **submollis** 442; virginiana 443; virginiana **dentata** 448; virginiana **eximia** 447; virginiana **fusiformis** 448; virginiana **geminata** 445; virginiana **macrophylla** 447; virginiana maritima 449; virginiana **pygmaea** 449; virginiana **virescens** 446

R

Ramaley, F. 196
Raritebe 483
Ray system of Quercus alba 313
Redwood distribution 492
Reed, H. S., work of 113
Regeneration of Bryophyllum 191
Rendle, A. B., work of 284
Respiration of Echinocactus 354
Reviews: Armstrong's "British grasses" 365; Britton's "Flora of Bermuda" 564; Ganong's "Textbook of botany" 194; Harshberger's "New Jersey pine barrens" 479; Jeffrey's "Anatomy of woody plants" 363; Loeb's "Organism as a whole" 274; Robbins' "Botany of crop plants" 195, 564; Rock's "Ornamental trees of Hawaii" 481; Taubenhaus' "Culture and diseases of the sweet pea" 194; Trelease's "Plant materials of decorative gardening" 194; West's "Algae" 480
Reynolds, E. S., work of 373
Rhizina undulata, sexuality in 201
Rhus diversiloba, secretory canals of 268
Rhynchospora 284
Rhysolepis 375
Rigg, G. B. 197, 359
Riseleya 284

Robbins, W. J., 543
Robbins, W. W. 493; "Botany of crop plants" 195, 564; work of 196
Rock, J. F. 261; "Ornamental trees of Hawaii" 481; work of 482
Rocky Mountains, subalpine plants of 195
Rose, D. H. 112; work of 113
Rubiaceae 483
Russell, E. J., work of 115
Rusts, biology of 366
Ruta chalapensis 339
Rydberg, P. A., work of 195

S

Sagina apetala 337
Salicornia utahensis 336
Salix amygdaloides **Wrightii** 14; Bonplandiana 17; Bonplandiana pallida 19; Bonplandiana **Toumeyi** 20; cana 38; conspectus of 1; exigua 25; exigua **stenophylla** 25; Gooddingii 12; Hartwegii 28; Humboldtiana 6; Humboldtiana **Martiana** 8; Humboldtiana **stipulacea** 7; jaliscana 16; laevigata 21; lasiolepis 31; longifolia angustissima 26; longipes 21; longipes **venulosa** 14; mexicana 29; nigra **Lindheimerii** 9; **oxylepis** 34; paradoxa 35; paradoxa ajuscana 37; Peasei 482; **Rowleei** 31; Rowleei **cana** 34; **Schaffnerii** 30; sessilifolia **leucodendroides** 26; taxifolia 23; taxifolia **microphylla** 24; funerea 341
Sap concentration and plant communities 285
Sargent, C. S. 423
Saugetia 285
Scirpus robustus paludosus 335
Schmitz, H., work of 113
Schneider, C. 1
Secretory canals of Rhus diversiloba 268
Sequoia sempervirens, distribution of 492
Severy, J. W., work of 113
Sexuality in Rhizina undulata 201
Shantz, H. L., work of 281
Shive, J. W., work of 282
Shreve, F., work of 198
Shull, C. A. 119, 120, 570, 571
Sinnott, E. W., work of 116
Sisyrinchium **boreale** 58; idahoense **birameum** 58
Skinner, J. J., work of 571
Small, J. K., work of 376, 483
Smith, C. P., work of 376, 483
Smith, E. F., work of 114, 196
Smith, J. J., work of 483
Soil moisture 196; and evaporation 483; toxins 492
Solanum effects of rest and no-rest periods 344
Solidago, anatomy of 250; embryo sac of 571
Speight, R., work of 118
Sperms of ferns, method for staining 562
Spessard, E. A. 362
Sphagnum, growth of trees in 359
Sphenospora **Berberidis** 465
Sporobolus flexuosus 335
Stakman, E. C., work of 374
Stanleya elata 338
Steil, W. N. 562
Stephani, F., work of 285
Stevens, F. L. 227
Stiles, W. 526
St. John, H., work of 375
Stokey, Alma G. 97
Strychnos 284
Sturgis, W. C., work of 483
Successions of vegetation in Boulder Park, Colorado 493
Sugar, translocation of 199
Swingle, W. T., work of 376
Synanthic blossoms in Nicotiana 175
Syringa persica, bud sport on 560

T

Taal volcano, revegetation of 195
Taubenhaus, J. J., "Culture and disease of the sweet pea" 194
Tehon, L. R. 552
Tetracoccus Hallii 339
Thiel, A. F., work of 484
Thomas, N., work of 281
Thompson, W. P. 83, 119
Tonestus **eximius** 70
Tottingham, W. E., work of 571
Transpiration studies 281
Treboux, O., work of 369
Trelease, W. 489, 490; "Plant materials of decorative gardening" 194
Trifolium gracilentum reductum 338; Leibergii 58
True, R. H. 71
Turrill, W. B., work of 284
Twin hybrids and mass mutations of Oenothera grandiflora 377

U

Uredinales of the Andes 460
Uredo Erythroxylonis 473
Uromyces Cestri 467; crassipes 466; elatus 466; Howei 467; leptodermus 466
Uropyxis quitensis 464

V

Vaccinium, structure of wood 556
Verbascum hybrids 488

W

Washington, grasslands and forests of 283
Weaver, J. E., work of 282, 283, 483, 484
Weevers, Th., work of 117
Wells, B. W. 535
Wernham, H. F., work of 285, 483
West Indies, grasses of 285
West, G. S., "Algae" 480
Western plant studies 58
Wheat, new disease of 196
Whitaker, Edith S. 250
Willis, J. C., work of 116, 486
Wittrock, V. B., work of 491
Wylie, R. B., work of 197

Y

Yucca baccata 336

Z

Zeller, S. M., work of 112
Zoocecidia of N.E. United States and eastern Canada 535